

ABSTRACT OF THE DISCLOSURE

An optical device including a light source for emitting diverging light, a polarizing beam splitter for transmitting or reflecting the diverging light according to a polarized light component, a collimator lens for converting the diverging light transmitted through the polarizing beam splitter into collimated light, and an objective lens for focusing the collimated light on an object. The optical device further includes an optical element arranged between the collimator lens and the objective lens for producing a phase difference of $+90^\circ \pm 15^\circ$ or $-90^\circ \pm 15^\circ$ between P-polarized light and S-polarized light. The optical element has a principal axis perpendicular or parallel to a plane of incidence of the diverging light on the polarizing beam splitter. For example, the optical element is provided by a quarter-wave plate having an optic axis perpendicular or parallel to the plane of incidence of the diverging light on the polarizing beam splitter.